

This is a death claim brought by Charles O'Dell's surviving spouse. A staphylococcus aureus infection on an artificial valve in O'Dell's heart resulted in endocarditis which caused his death on August 8, 2004. The surviving spouse argued the bacterial infection was caused by concrete burns O'Dell suffered at work for respondent. In contrast, the respondent noted O'Dell had been treated for bacterial endocarditis in 2001 caused by intravenous drug abuse which resulted in a porcine heart valve replacement.

Respondent argued O'Dell's recurrent endocarditis was more probably caused by intravenous drug use or bacteria from periodontal gum disease.

The Administrative Law Judge (ALJ) determined the surviving spouse did not sustain her burden of proof that O'Dell's staphylococcus aureus infection, which resulted in endocarditis and caused his death, was due to concrete burns he suffered at work.

The surviving spouse requests review of whether or not claimant's death arose out of and in the course of employment. She argues that O'Dell's concrete burns allowed the staphylococcus aureus bacteria to enter his body and infect his artificial heart valve which caused endocarditis and resulted in O'Dell's death.

Respondent argues the ALJ's Award should be affirmed.

The issue before the Board is whether O'Dell's death was caused by accidental injury arising out of and in the course of his employment with the respondent.

#### **FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Having reviewed the evidentiary record filed herein, the stipulations of the parties, and having considered the parties' briefs and oral arguments, the Board makes the following findings of fact and conclusions of law:

While working for the respondent, one of Charles O'Dell's job duties was concrete work. As a result of that concrete work, O'Dell would on occasion get concrete burns as well as scratches, cuts or abrasions. In August 2000, O'Dell was treated for concrete burns and prescribed Silvadene ointment. Afterwards, O'Dell always kept Silvadene on hand to treat concrete burns he occasionally received. And before his last day of work on August 3, 2004, O'Dell had sustained concrete burns on his left forearm and right knee that he had been treating with Silvadene. A co-worker, Aaron Bradford, testified that he was working with O'Dell on August 2, 2004, cutting concrete and he suffered a concrete burn. O'Dell offered Bradford some Silvadene ointment for the burn and explained that he had the ointment because a few weeks before that date he had suffered a concrete burn that had become infected.

After working all day on Tuesday, August 3, 2004, O'Dell, his wife, mother-in-law and daughter left for a trip to Casper, Wyoming. Tuesday night they stayed in a hotel in Concordia, Kansas. And by Wednesday night, they were in Casper, Wyoming. On Thursday night, the family had a barbeque and visited with relatives. O'Dell was joking and having a good time. But by the next morning O'Dell had become ill. His wife testified:

Q. Tell us about Friday.

A. Friday, as we were all getting ready in the motel, he did not feel good. He says, "Gloria, I don't feel good, I'm not going to be able to come with you guys. I'm going to stay in bed." I said okay.<sup>1</sup>

Mrs. O'Dell thought her husband had the flu. On Saturday afternoon, when O'Dell was not any better the family decided to head home. They traveled as far as Cheyenne, Wyoming, and obtained lodging in a motel. Later that evening, Odell complained of cold feet and numbness. His face was broken out and his wife noticed that he had concrete burns the size of a nickel on his left forearm and right knee. O'Dell was treating these burns with the Silvadene ointment. The surviving spouse's mother, Helen Carlsen, testified that at the motel O'Dell had shown her two open sores about the size of a nickel on his right leg.

The next morning O'Dell could not walk and was complaining of numbness from his feet to his knees. He asked his wife to call his work supervisor, Troy Schuknecht, and let him know about the concrete burns. Mr. Schuknecht told O'Dell's wife to call an ambulance and take O'Dell to the hospital. An ambulance was called and O'Dell was transported to the hospital. Various tests were performed and then O'Dell was transferred from Cheyenne, Wyoming, to Denver, Colorado, for a possible heart valve replacement. O'Dell died in Denver on August 8, 2004.

O'Dell's death certificate listed the underlying cause of death as endocarditis. The autopsy concluded he suffered acute bacterial endocarditis of his prosthetic heart valve with the complications of septic emboli to the lungs, brain and kidneys which resulted in pulmonary infarction, pneumonia and intracerebral hemorrhage. The external examination noted that the back and extremities were not remarkable except for multiple puncture wounds, both recent and remote (right antecubital fossa).

The emergency room records from United Medical Center-West in Cheyenne, Wyoming, indicated that O'Dell had a scabbed over injury to his left forearm which had not healed and another on his right leg. It further indicated O'Dell gave a history of being drug free and he denied any dental work.<sup>2</sup>

The surviving spouse testified:

Q. All right. Now, other than the two concrete burns that he pointed out to you on Sunday morning and which prompted your call to Troy, did he have any other open sores or open wounds or any cuts or scratches that you saw? Except, of course, for these purple marks.

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<sup>1</sup> R.H. Trans. at 21.

<sup>2</sup> Goldenberg Depo., Ex. 7.

A. No.

Q. And this Silvadene ointment tube is the same one that was with his stuff after he passed away that you brought back.

A. Yes.

Q. And you saw him use that on the trip.

A. Yes.<sup>3</sup>

The surviving spouse further testified that O'Dell had a heart valve surgically replaced on September 10, 2001, and that he never used any illegal drugs after his surgery. She testified:

Q. Was your husband using any IV drugs from 2002 up through the time of his death?

A. No.

Q. Why do you say that? Why do you know that?

A. Because prior in 2001, I found it all over the house. I would find syringes that had not been used. And I was a very snoopy person. I was looking through everything and would find it. And then when I filed for divorce in December, 2000, he told me how he did not want this, he would do whatever it took and so I moved into a different house and I did not find it anywhere. As I said, I'm very snoopy. I mean I looked through everything. I could not -- I didn't see anything anywhere.<sup>4</sup>

The surviving spouse testified that she was very certain that her husband had not been using IV drugs in the year or two before his death. Jill Greer, a family friend, corroborated the surviving spouse's testimony that O'Dell was a different person after his heart surgery in 2001 and that he was drug free after that surgery.

Dr. David Fullerton, board certified in surgery, thoracic surgery and critical care, provided treatment for O'Dell when he arrived in Denver, Colorado. The doctor noted that when O'Dell arrived at the hospital in Denver he did not have a pulse and unsuccessful efforts were made to resuscitate him. Dr. Fullerton testified:

Q. All right. At some point in time have you seen the emergency room records from Cheyenne?

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<sup>3</sup> R.H. Trans. at 28-29.

<sup>4</sup> O'Dell Depo. at 12.

A. I have. I think I have anyway, yes.

Q. And they indicate under history of present illness that Mr. O'Dell had had a porcine valve placement due to acute, I'm going to call it staph. aureus bacterial endocarditis secondary to IV methamphetamine use. Was that also your understanding?

A. Yes. I forget exactly when that had been done but it was a few years prior.

Q. It was in September of '01 actually.

A. Yes.

Q. And that he reported to Dr. Hattel that he had not used any more illicit drugs and that he had been working and leading a normal life working as doing concrete work.

A. That was my understanding as well, yes.

Q. In your care of him and your review of the records, both from the autopsy as well as from Cheyenne, did you have any suspicion or reason to think that Mr. O'Dell had been a recent IV drug user in relation to his death?

A. No.

Q. And when you spoke with Dr. Hattel did Dr. Hattel voice any suspicion that he thought that Mr. O'Dell had been a recent IV drug user?

A. No.<sup>5</sup>

Dr. Allen J. Parmet, board certified in occupational medicine, testified that the decedent's cause of death was bacterial endocarditis from staphylococcus aureus infection which occurred on a prosthetic heart valve replacement. He testified:

Q. Did you review the records of Mr. O'Dell?

A. Correct.

Q. When you went through the records of the Cheyenne Wyoming hospital, the United Medical Center where he was first admitted from being sick, were there any references in there to any needle marks when he first went in as opposed to references to needle marks at autopsy?

A. I did not see any references to that.

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<sup>5</sup> Fullerton Depo. at 5-6.

Q. What was your diagnosis of Mr. O'Dell's cause of death?

A. He developed bacterial endocarditis from staphylococcus aureus infection. It occurred on a prosthetic valve that had been replaced previously.

Q. What was the source that you determined of the staph aureus that ended up on his valve?

A. The most likely source is from his own skin through an open sore that he would have. These would have been due to his work with either an abrasion or chemical irritation from concrete in the various construction activities he would do.<sup>6</sup>

Dr. Parmet testified that chronic dermatitis is sufficient skin damage to allow the penetration of staph aureus bacteria. Due to O'Dell's artificial valve, he was at greater risk for bacteria growing on the valve. The doctor further testified that he could not say for sure how long it took for the staph aureus bacteria to develop but it was probable anywhere from a few days up to four weeks.

Q. What is your view as to the source of Mr. O'Dell's bacterial endocarditis that resulted in his death?

A. Given his history and occupation and the other history I have available, it's most likely he had a breach in his own skin and became bacteremic from his own skin flora through a wound that occurred while he was working on the job with either a burn or irritation, scrape. The open dermatitis sores like you see there on this picture are very typical. That would be an easy port of entry.<sup>7</sup>

Dr. Parmet opined:

Based upon the epidemiology, the history, and physical findings, objective testing, autopsy results, testimony, occupational history, and known toxicology of cement and concrete, I find that, to a reasonable degree of medical certainty, the source of Mr. O'Dell's fatal case of bacterial endocarditis was an occupationally caused injury to the skin allowing normal skin flora, staphylococcus aureus, to enter the bloodstream and infect his valve.<sup>8</sup>

Dr. Roger Goldenberg, board certified in emergency medicine, reviewed O'Dell's death certificate, autopsy report and medical records regarding O'Dell's treatment in Wyoming and Colorado. Dr. Goldenberg opined that cement burns are an alkali burn

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<sup>6</sup> Parmet Depo. at 8-9.

<sup>7</sup> *Id.* at 19.

<sup>8</sup> Parmet Depo., Ex. 2 at 6.

which might not initially hurt so that the individual does not realize how badly he may be getting burned. And Silvadene is a classic burn dressing used to kill bacteria in the wound. The surviving spouse's counsel asked Dr. Goldenberg to review O'Dell's records to determine whether he died as a result of an infection which entered his body through a concrete burn. The doctor testified:

Q. And after reviewing all the materials, what conclusion did you come to?

A. Well, I don't think there's any doubt in anyone's mind that he passed away from endocarditis, which was what kind of led to his death. And certainly what seems to make him -- his valve -- I'm sure you guys all know. So his valve became infected. And the type of infection on there was a bacteria called staph. Staph is very common from skin lesions. So the thing I would make -- so I don't think anyone would argue either that somehow staph had gotten into his body, had caused -- when bacteria is in your blood, we call it bacteremia. So he had a bacteremia that got his valve infected. So the infection from that valve spread and is what ultimately caused his death.

Staph is very, very common, you know, on skin. So, again, I don't think maybe -- what are you saying that -- well, is it certainly came from some type of skin source. And if he had a wound, that would be the most common cause of that, is that wound. So in this case probably that concrete burn is what led to that.<sup>9</sup>

Dr. Goldenberg further commented that an infection that comes through the skin takes several days, at least five, before it shows up. Dr. Goldenberg concluded that claimant died as a result of bacterial endocarditis which was caused by a staph infection O'Dell received due to a concrete burn. And he opined that if the bacterial infection came from the mouth, due to gum disease or the teeth, it likely would have been a strep infection instead of the staph infection O'Dell developed.

Q. And would things like cracking, blisters, fissures, and bleeding be the places where a staph infection could enter the body?

A. Right. So you're -- certainly that's your skin's job in life is to stop the outside environment from entering your body. So whenever there's a defect in that skin, infection could come. That's a portal of entry. It's a natural portal of entry.<sup>10</sup>

On behalf of respondent, Dr. Carl D. Pfuetze, board certified in internal medicine and cardiovascular disease, performed a medical review of O'Dell's records for purposes of determining whether or not the concrete burns caused the endocarditis. Dr. Pfuetze testified:

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<sup>9</sup> Goldenberg Depo. at 19-20.

<sup>10</sup> *Id.* at 25.

Q. Well, Doctor, obviously the core issue in this case is whether the concrete burn, the cement burn that Mr. Odell suffered allegedly on August 2nd, 2004 provided the source for the infection to enter his body. You were specifically asked to review the medical records, the transcripts, and to formulate an opinion on whether you would concur with that, and I take it that you do have an opinion on whether that was the cause of the infection that entered Mr. Odell's body; is that correct?

A. I have an opinion, yes.

Q. What is that opinion, Doctor?

A. My opinion is that it is so extremely unlikely that those small burns caused this particular case of endocarditis that it is -- it's -- it's just -- you could call it impossible. What I mean by that is if you look at the world literature on this subject, on concrete burns, and I looked at major articles published in several countries, including the series of 50,000 burn cases in the United States Burn Registry, and looked at all the concrete burn cases from those records, there were no cases reported in any place in the world of bacterial endocarditis as a complication of a concrete burn. It's been recognized that some people with thermal burns from flame or hot -- hot things that destroyed skin and injured it, on -- on maybe one percent of severe cases of bad burns might develop endocarditis as a complication, but the medical literature says that the average size of those burns covers 40 to 90 percent of the body area. Most concrete burns are one, or, two or three percent burns, and just as you will know, a burn that would be about as big as your hand would be about a two percent burn. So anything that's smaller than that would have an, you know, extremely improbable chance of seeding infection.<sup>11</sup>

Dr. Pfuetze focused on the assumption that O'Dell suffered the concrete burns on August 2, 2004 and there was not enough time from that date for the extensive endocarditis to develop and cause the onset of O'Dell's symptoms on August 5, 2004.

K.S.A. 44-501(a) states in part: "In proceedings under the workers compensation act, the burden of proof shall be on the claimant to establish the claimant's right to an award of compensation by proving the various conditions on which the claimant's right depends." K.S.A. 44-508(g) defines burden of proof as follows: "'Burden of proof' means the burden of a party to persuade the trier of facts by a preponderance of the credible evidence that such party's position on an issue is more probably true than not true on the basis of the whole record." In order to prevail O'Dell's surviving spouse must establish that O'Dell's death arose out of and in the course of his employment.

It is the function of the trier of fact to decide which testimony is more accurate and/or credible and to adjust the medical testimony along with the testimony of the claimant and any other testimony which may be relevant to the question of disability. The trier of fact is

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<sup>11</sup> Pfuetze Depo. at 23-24.



not bound by medical evidence presented in the case and has the responsibility of making its own determination.<sup>12</sup>

Drs. Parmet and Goldenberg opined that the infection which led to O'Dell's death was caused by concrete burns he suffered while working for respondent. Conversely, Dr. Pfuetze opined that O'Dell could not have become infected by a concrete burn and the more likely cause of his infection was IV drug use or periodontal disease. The ALJ analyzed the evidence, adopted the opinion of Dr. Pfuetze and determined the surviving spouse had failed to meet her burden of proof to establish O'Dell's staphylococcus infection, which ultimately led to his death, was caused by concrete exposure at work. The ALJ noted in part:

It is important to note that none of the testifying physicians ever examined the alleged concrete burns. They were not documented in the medical records or the autopsy report. Lay witness descriptions of the burns were that they were superficial in nature."

The Board disagrees and reverses.

Initially, the evidence established that O'Dell suffered recurrent concrete burns from his work and self medicated with Silvadene. And it is significant to note that the evidence further established that he had been treating a concrete burn on his forearm for several weeks before his last day worked. A co-worker, Mr. Bradford, testified that O'Dell told him on August 2, 2004, about a concrete burn on his arm that he had been treating for a few weeks. O'Dell's spouse and mother-in-law confirmed they had seen concrete burns on O'Dell's arm and leg which he was treating with Silvadene. This was confirmed by the emergency room record from the United Medical Center-West, Cheyenne, Wyoming, dated August 8, 2004. The record of O'Dell's admission provided a history which noted in pertinent part:

The patient denies any dental work. He does state that in his job, he does get scrapes and bumps, and in fact, has an injury to his left forearm, which is scabbed over, but the patient states that this has been there for several weeks and has not healed. He also has one on his right leg that appears the same.<sup>13</sup>

The emergency physician record of that hospital admission also noted concrete burns to his skin.<sup>14</sup>

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<sup>12</sup> *Tovar v. IBP, Inc.*, 15 Kan. App. 2d 782, 817 P.2d 212, *rev. denied* 249 Kan. 778 (1991), *Graff v. Trans World Airlines*, 267 Kan. 854, 983 P.2d 258, (1999).

<sup>13</sup> *Goldenberg Depo.*, Ex. 7.

<sup>14</sup> *Id.*, Ex. 7.

The evidence established O'Dell had concrete burns and had been treating them for some time. The Board is mindful that the autopsy report merely notes the extremities were not remarkable except for multiple puncture wounds both recent and remote (right antecubital fossa). It would be expected that the concrete burns would have been noted but the autopsy report also listed only a 2 cm scar on O'Dell's chest which his wife noted was much larger than that from his 2001 heart surgery. In any event the preponderance of the evidence, including the emergency room medical records, establishes O'Dell had concrete burns on his left forearm and right leg.

The doctors offered varied opinions regarding the time it would take for an infection coming through the skin to develop the condition found in O'Dell. The opinions varied from five days (Dr. Goldenberg), a minimum of two weeks (Dr. Pfuetze), and up to a month if the initial portal for the bacteria to enter the skin was small (Dr. Parmet). Because the evidence established O'Dell had been treating the concrete burn on his forearm for a few weeks before August 2, 2004, there was sufficient time, under any of the doctors opinions for the infection to develop to the extent found in O'Dell. And as previously noted, because Dr. Pfuetze seemingly focused on O'Dell's concrete burn having occurred on August 2, 2004, rather than a few weeks before that date. His adamant opinion that there was not sufficient time for O'Dell's concrete burns to have caused the infection is not persuasive.

The Board is mindful that Dr. Pfuetze proffered alternate causes for the infection that led to O'Dell's death. Nonetheless, there simply was no persuasive evidence to establish that O'Dell continued to engage in IV drug abuse. The surviving spouse and two friends of O'Dell testified that he was no longer using drugs. Drs. Goldenberg and Pfuetze agreed the recent puncture wounds found on the inside of O'Dell's right elbow more probably than not were from efforts to treat his infection. And there was no evidence to establish the age of the remote puncture wounds. More significantly, in the emergency room record from the United Medical Center-West, Cheyenne, Wyoming, dated August 8, 2004, the following pertinent history was noted:

The patient is a 49-year-old white male with a history of tricuspid valve replacement with a porcine valve for acute *Staphylococcus aureus* bacterial endocarditis, secondary to IV methamphetamine use. Patient made an unremarkable recovery from this and has been well since that time, and has not used any more illicit drugs and has, in fact, been working pouring cement forms.<sup>15</sup>

Dr. Goldenberg noted that a dying patient is not likely to lie about drug use when he does not know what treatment is necessary to help his condition. And Dr. Fullerton, the emergency room doctor in Denver, stated that he had no reason to believe O'Dell was a recent IV drug user. And finally, there is inconsequential evidence to support Dr. Pfuetze's alternate theory that periodontal disease was the cause of the infection.

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<sup>15</sup> Goldenberg Depo., Ex. 7.

Consequently, the Board adopts Drs. Parmet's and Goldenberg's opinions and finds O'Dell's surviving spouse has met her burden of proof to establish that O'Dell died as a result of bacterial endocarditis which was caused by a staph infection he received due to a concrete burn. Accordingly, the surviving spouse and dependent children are entitled to death benefits pursuant to K.S.A. 44-510b.

Gloria O'Dell, decedent's wife, testified that at the time of claimant's death on August 8, 2004, he was paying child support for Delaney G. O'Dell as well as supporting his wife and Dana J. O'Dell, his daughter. But there was further evidence that at the time of O'Dell's death he had another son, Zachary C. Huntington, who would have been 19 years old and potentially entitled to death benefits.<sup>16</sup> Consequently, this case is remanded to the ALJ for further proceedings to determine the dependents entitled to death benefits, whether a conservatorship has been established for any minor dependent, attorney fees and attorney fee lien.

### **AWARD**

**WHEREFORE**, it is the decision of the Board that the Award of Administrative Law Judge Marcia L. Yates Roberts dated October 20, 2008, is reversed and remanded for further proceedings in accordance with the foregoing.

### **IT IS SO ORDERED.**

Dated this \_\_\_\_\_ day of December 2009.

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BOARD MEMBER

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BOARD MEMBER

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BOARD MEMBER

c: John J. Bryan, Attorney for Claimant  
Roy T. Artman, Attorney for Respondent and its Insurance Carrier  
Marica L. Yates Roberts, Administrative Law Judge

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<sup>16</sup> See K.S.A. 44-510b(a)(3).